DOCUMENT RESUME

ED 470 059 HE 035 450

AUTHOR	Ehrenberg, Ronald G.; Smith, Christopher L.
TITLE	What a Difference a Decade Makes: Growing Wealth Inequality among Ivy League Institutions.
SPONS AGENCY	Andrew W. Mellon Foundation, New York, NY.
PUB DATE	2001-05-03
NOTE	11p.
PUB TYPE	Information Analyses (070)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	Comparative Analysis; *Endowment Funds; *Higher Education; *Selective Colleges; Student Financial Aid
IDENTIFIERS	*Ivy League Colleges; *Wealth

ABSTRACT

This study examined the growing inequality in wealth among the Ivy League institutions. In July 1990, the endowments at the 8 Ivy League institutions varied from about $441 million at Brown to $4.683 billion at Harvard. A decade later, the range was $1.44 billion to $19.2 billion. The Ivy institutions' endowments grew by an average of 261% during the decade, far exceeding the decade's increase in consumer prices of 30.9%. Focusing on endowment per student is probably the best way to illustrate how wide the resource differences are across the institutions. In 2000, the 3 richest Ivy institutions had endowments averaging more than $1,000,000 per student (Princeton, Harvard, Yale), while the bottom 3 (Brown, Cornell, Pennsylvania) averaged under $200,000. It must be remembered that, although the poorest Ivies have become poorer relative to their richer Ivy competitors, they have become richer relative to most of their other private competitors. In the future, one may expect to see even more preferential packaging and direct merit aid, as well as greater faculty salary differentials at institutions that rank below the Ivy League in terms of student selectivity and endowment wealth. (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 470 059

Revised Draft
May 3, 2001
Comments Solicited

WHAT A DIFFERENCE A DECADE MAKES: GROWING WEALTH INEQUALITY AMONG IVY LEAGUE INSTITUTIONS

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
R. Ehrenberg
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
1

by

Ronald G. Ehrenberg and Christopher L. Smith*

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

* Ehrenberg is the Irving M. Ives Professor of Industrial and Labor Relations and Economics at Cornell University and Director of the Cornell Higher Education Research Institute. Smith is a sophomore in Cornell's School of Industrial and Labor Relations. We are grateful to the Andrew W. Mellon Foundation and other donors for their support of our research. However, all views expressed here are strictly our own.

BEST COPY AVAILABLE

HE035450

The eight Ivy League institutions – Brown, Columbia, Cornell, Dartmouth, Harvard, Pennsylvania, Princeton and Yale- are among our nations most selective undergraduate institutions. They also are among its wealthiest. They compete against each other for top faculty, graduate and undergraduate students, as well as on intercollegiate athletic fields. However, this competition has never taken place on a level "playing field" because of the vast differences in endowment resources that have always existed across the institutions. The prolonged stock market expansion during the 1990s magnified these differences in ways that many still do not fully comprehend.

On July 1, 1990 the endowments at the eight Ivy institutions varied from about $441 million at Brown to $4.683 billion at Harvard (table 1). A decade later, the range was $1.44 billion to $19.2 billion. The rapid growth of stock prices during the 1990s inflated these institutions' endowment values and led to large increases in their annual giving, which further increased their endowments. The Ivy institutions' endowments grew by an average of 261% during the decade, which far exceeded the decade's increase in consumer prices of 30.9%. Harvard's endowment growth of over 300% was the largest of all the institutions.

Focusing on endowment levels ignores the differences in enrollment levels that also exist across the institutions. Endowment levels per full-time student are often used to measure the relative wealth of institutions. Of course, the institutions vary in the shares of their student bodies that are enrolled in undergraduate, professional and doctoral programs and the costs of educating different types of students vary. Some of the institutions have medical colleges, which consume large shares of the institutions' endowment resources but enroll relatively few students. One of the institutions, Cornell,

also receives state support to help subsidize the operations of some of its colleges and in return charges substantially lower tuition to New York State residents that enroll in these colleges. Nonetheless focusing on the institutions' endowments per full-time student is probably the best way to grasp how wide the resource differences are across the institutions.[1]

On July 1, 1990 Princeton led the group with an endowment of almost $390,00 per student. Harvard and Yale were close behind with endowment per student levels of about $281,000 and $245,000, respectively. The three "poorest Ivies" – Brown, Cornell and Pennsylvania" had endowments per student that varied between $44,000 and $62,000. Ten years later, the three richest Ivies endowments average over $1,000,000 per student, while the bottom three averaged under $200,000.

Put another way, even though the percentage changes in the endowment values at the richest and the poorest institutions were roughly the same over the decade, the absolute changes in their endowments per student varied markedly. The richest three institutions' endowments grew by an average of over $800,000 per student. In contrast the poorest three institutions' endowments grew by an average of less than $140,000 per student. Where each institution started the decade determined where it wound up!

What did this substantial change in the distribution of the absolute levels of endowment per student across the Ivy League institutions mean for the distribution of resources that each institution had available annually to spend on current operations per full-time student? A private university's spending comes from many sources but, as a

---

[1] The uses of some endowments are restricted and do not necessarily contribute to an institution's resources that are available for undergraduate student use. For example, if an endowment supports a university press and the university would not have a press in the absence of the endowment, the university press endowment should not be thought of as contributing to the resource base for undergraduate students.

first approximation, the major sources of its funds that are spent educating and providing financial aid for undergraduate students are its undergraduate tuition revenues, its annual giving from alumni, other individuals, foundations and corporations that is available for current operations and its spending from its endowment. Most institutions aim over long periods of time to spend approximately 4 to 5% of the value of their endowments (averaged over a number of years) each year.[2] To be conservative and to try to minimize the effect of endowment changes on spending, we use 4% in the calculations that follow.

The Council on Aid to Education collects data on annual giving to colleges and universities, by planned use, each year. We were given access to these data for the 1969-70 to 1999-2000 period for a large sample of American colleges and universities under the condition that we keep the data for any individual institution confidential. Hence, in what follows we report information grouped for the richest and poorest three Ivy institutions. We also use giving data for 1999-2000 to approximate what giving for those institutions actually were in 2000-2001, because the latter were not available to us.

The top panel of table 2 indicates that the average level of tuition and fees varied only by about $366 between the richest and poorest three Ivies in 1990-91. While the poorer three institutions' tuition was higher, they also received an average of about $2,450 per full-time student less than their richer counterparts each year in the form of annual giving for current operations. The major difference in the level of resources that each institution had to spend, however, came from the disparity in endowment wealth, with the two sets of institutions averaging $52,390 and $305,350 per student in endowment. If each institutions had spent 4% of its July 1, 1990 endowment value in

[2] For an explanation for why they do so, see Ronald G. Ehrenberg, *Tuition Rising: Why College Costs So Much* (Cambridge MA: Harvard University Press, 2000), chapter 3.

1990-91, the poorer institutions would have averaged $2,096 in endowment spending per student and the richer ones $12,214. Adding up the three sources of revenue, the richest institutions would have averaged $33,912 in spending per student, while the poorer three would have averaged $21,714. The difference of $12,198 is equivalent to the richer Ivies having 56% more resources available to spend per student than the poorer Ivies.

As the bottom panel of table 2 indicates, in 2000-2001 the average tuition at each of the two sets of institutions was over $25,000 and the difference between the two averages was slightly more than $200. Average annual giving for current operations rose at both sets of institutions, but the difference in the average per student fell slightly to about $2,400.[3] However, again assuming a 4% endowment-spending rate, average spending per student from endowment at the three richest Ivies would have risen to $44,463 and at the three poorest to $7,572. As a result, total spending per student from the three sources would have averaged $79,058 and $40,000, respectively at the three richest and three poorest Ivies. The gap in spending per student would have risen to $39,058. The richer Ivies would have had an average of almost 98% more resources per student to spend than the poorer Ivies had, up from 56% more a decade earlier.

Of course some of the increased spending that took place at all of the institutions over the decade and some of the increase in the spending gap between the richest and the poorest Ivies was due to general increases in prices, or inflation, that took place during the decade. Between September 1990 and September 2000, the Consumer Price Index

[3] In 1990-91, the average share of annual giving going to current operations was .544 at the richest three Ivies and .560 at the poorest three Ivies. By 1999-2000, the respective shares had fallen to .399 and .470 respectively. Relative to the richest three Ivies, the poorest three Ivies were devoting relative more of their annual giving to current purposes each year. The richer three Ivies devoted more of their annual giving to building their endowments in each year (.489 vs. .396 in 1999-2000), which helped to widen their absolute endowment advantage.

(CPI) rose by about 30.9%.[4] Hence viewed in terms of constant 1990 dollars, the gap in resources between the richest and poorest Ivies that was attributable to the three sources of funding grew to $29,838, widening by $17,640. Put another way, the richest Ivies spending advantage relative to their poorer counterparts rose by almost 150% in real terms.

Symptomatic of the growing disparity of financial resources among the Ivy institutions was Princeton's announcement in early 2000 that it was eliminating all loans from its financial aid packages. Harvard and Dartmouth (the 4th richest Ivy institution) quickly announced substantial, but not total, reductions in the loan component of their financial aid packages. Yale, which earlier in the year had extended its need blind admissions policies to all foreign applicants and guaranteed to meet the financial need of all accepted foreign applicants (at an estimated cost of $2 million to $3 million a year) announced that it was postponing a decision on reducing the loan component of its financial aid policies for a year. The poorer Ivies, whose financial aid packages had been more heavily weighted towards loans to start with, for the most part remained silent. When you don't have the resources there is little that you can do.

Undergraduate financial aid is but the tip of the iceberg. The richest institutions ratcheted up their faculty members' average salaries during the decade and the poorer institutions strove mightily to remain competitive. In 1990-91, the average salaries of full professors at the three richest and three poorest Ivy institutions were $84,800 and $72,000, respectively. By 2000-2001 these averages had risen respectively to $128,300

[4] The Higher Education Price Index (HEPI), a comprehensive price index for the higher education expenditures rose by 41.0% between 1989-90 and 1999-2000. However, since academic institutions themselves directly set the prices of many of the items that appear in the index, for example faculty salaries, our discussion in the text is based upon the CPI inflation rate.

and $106,700. So the richest Ivies increased their full professor salaries by 51.3% during the decade, while the poorer Ivies raised their full professor salaries by about 48.2%; both increases considerably exceeded the rate of inflation. As a result, the ratio of average full professor salaries across the two sets of institutions rose from 1.18 to 1.20. While one might marvel at how small the difference in growth rates of faculty salaries was at the two groups of institutions, the difference in the growth rates of full-time faculty at the two sets of institutions was much larger during the decade. The full-time faculty at the richest three Ivies grew by an average of 5%, while the full-time faculty at the poorest three Ivies declined by an average of 0.6% during the decade. The difference between these two growth rates exceeds the difference between the two groups in the growth rates of full-time enrollments during the period.

Arms races of university spending are likely to be self-ending, just as the actual arms race between the United States and the former Soviet Union was. Just as the poorer Ivies understand that they cannot compete with the richer Ivies across the board on undergraduate financial aid, they also understand that they cannot compete across the board on faculty salaries. However, to attract and retain the very best students and faculty, the poorer Ivies will have to differentiate more both their financial aid offers and their faculty salaries. Both preferential packaging in financial aid and merit pay in faculty salaries will become more prevalent at them. Put another way, we expect to observe increased dispersion in financial aid offers and in faculty salaries at each of the poorer Ivies in the years ahead, as a direct result of the growing dispersion in endowment wealth.

Should one feel sorry for the poorer Ivy institutions? Not on your life! Although they have become poorer relative to their richer Ivy competitors, they have become richer relative to most of their other private competitors. The absolute differences between their endowments per student and those of most of their private competitors have grown during the decade of the 1990s. So more generally, in the future we expect to see even more preferential packaging and direct merit aid, as well as greater faculty salary differentials at institutions that rank below the Ivy League in terms of student selectivity and endowment wealth.

Faculty salaries, student/faculty ratios and undergraduate financial aid are but three of the many dimensions on which universities compete. For example, research universities compete on the number and generosity of their graduate fellowships, on the size of the start-up packages they are able to provide to new faculty in the sciences and on the quality and size of their research facilities. As the dispersion of wealth widens across research universities, greater dispersion across institutions in each of these measures will occur.

Table 1

Endowment Wealth in the Ivy League
July 1990 and July 2000

A.) Endowment Levels

	July 1, 1990 Endowment (billions of dollars)	July 1, 2000 Endowment (billions of dollars)	Percentage change over the decade
Harvard	4.683	19.200	310%
Yale	2.585	10.100	291%
Princeton	2.475	8.400	239%
Columbia	1.516	4.260	181%
Cornell	.927	3.400	267%
Pennsylvania	.808	3.200	296%
Dartmouth	.654	2.470	277%
Brown	.441	1.440	227%

B.) Endowment Per Full-Time Student

	July 1, 1990	July 1, 2000[a]	Absolute change over the decade
Princeton	$389,887	$1,322,626	$932,739
Harvard	$281,481	$1,064,892	$783,411
Yale	$244,676	$ 947,201	$702,525
Dartmouth	$137,353	$ 480,078	$342,705
Columbia	$104,286	$ 259,835	$155,549
Brown	$ 62,202	$ 200,362	$138,430
Cornell	$ 50,636	$ 185,671	$135,035
Pennsylvania	$ 44,337	$ 181,870	$137,533

[a] Full-time enrollment in 1997, the latest year for which data is currently available from WEBCASPAR, is used in the calculation for endowment per full-time student in this column

Table 2

Resources from Tuition, Annual Giving and Endowment Income
Available for Current Operations: 1990-91 and 2000-01

	Tuition and Fees	Giving Per Full-Time Student for Current Operations	Endowment per Full-Time Student[d]	Total Resources per Full-Time Student[c]
A.) 1990				
Top 3 Ivies[a]	$15,023	$6,675	$ 305,348	$33,912
Bottom 3 Ivies[b]	$15,389	$4,229	$ 52,392	$21,714
Absolute Difference				$12,198
B.) 2000				
Top 3 Ivies	$25,259	$9,336	$1,111,573	$79,058
Bottom 3 Ivies	$25,465	$6,964	$ 189,301	$40,000
Absolute Diff. in 2000 dollars				$39,058
Absolute Diff. in 1990 dollars				$29,838

[a] Harvard, Yale, Princeton
[b] Brown, Cornell, Dartmouth
[c] Computed as tuition and fees plus giving per full-time student for current operations plus 4 percent of endowment per student
[d] Computed for 2000 values using 1997 enrollment

Data sources
July 1, 1990 Endowment (CAE)
1990-91 Giving for Current Expenditures (CAE)
1990-91 Tuition & Fees (WEBCASPAR and UPENN website)
Fall 1990 Enrollments (WEBCASPAR)
July 1, 2000 Endowments (Chronicle)
1999-2000 Giving for Current Expenditures (CAE)
2000-2001 Tuition & Fees (US News)
Fall 1997 Enrollment (WEBCASPAR)
September 2000/September 1990 Consumer Price Index (BLS)

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: "What a Difference a Decade Makes: Growing Wealth Inequality Among Ivy Institutions."	
Author(s): Ronald Ehrenberg	
Corporate Source: CHERI	Publication Date: 2001

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☐

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature: Ronald G. Ehrenberg	Printed Name/Position/Title: Ronald G. Ehrenberg, Director	
Organization/Address: CHERI Cornell University Ithaca, NY 14853	Telephone: 607-255-3026	FAX: 607-255-4496
	E-Mail Address: rge2@cornell.edu	Date: 3/5/03

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: info@ericfac.piccard.csc.com
WWW: http://ericfacility.org